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Ontario Energy Board  
27<sup>th</sup> Floor  
2300 Yonge Street  
Toronto, Ontario  
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ATT: Kirsten Walli, Secretary

September 20, 2007.

Dear Ms. Walli,

**Re: 3<sup>rd</sup> Generation Incentive Regulation for Electricity Distributors  
Board File No.: EB-2007-0673**

In accordance with the OEB's e mail and web posting of August 2, 2007, ECMI submits its comments on the Staff Scoping Paper "3rd Generation Incentive Regulation for Electricity Distributors", also dated August 2, 2007.

Three paper copies are enclosed. Electronic copies in both Adobe Acrobat and Word have been sent by email to boardsec@oeb.gov.on.ca.

Requested contact details are as follows:-

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Respectfully submitted for the Board's consideration,

*Original signed by R. White*

Roger White  
President

**ECMI comments on Staff Scoping Paper  
3rd Generation Incentive Regulation for Electricity Distributors  
EB-2007-0673**

**Introduction**

ECMI's comments are set up under headers which are included for reference convenience only and should not be used to compartmentalise ECMI's integrated response.

**Level Playing Field**

On page 4 of the Staff Scoping Paper it states that:-

*"In its December 20, 2006 "Report of the Board on Cost of Capital and 2nd Generation Incentive Regulation for Ontario's Electricity Distributors", the Board addressed the implementation of its cost of capital policy, and specifically noted that it did not anticipate reviewing the issue again in the context of 3rd Generation IRM. Staff has therefore not included cost of capital as an issue in relation to the 3rd Generation IRM consultations."*

The Board has created a one shoe fits all approach by its policy on the Cost of Capital. By adopting this policy, the Board has a duty to maintain the new level playing field in the other areas under consideration. That level playing field must be maintained for all LDCs with respect to both the cost of capital and access to that capital. LDC's who have not adequately maintained their distribution system should not then be rewarded by special arrangements allowing additional access to capital through rates. If the Board decides differently for one LDC, then all parties should have equal opportunity to recover capital spending through rates. If the Board chooses to allow the inclusion of capital expenditures from rates on some incremental basis the incremental revenue should be treated as contributed capital for the purposes of the balance sheet and any future rate base considerations.

Performance Based Regulation (PBR) is an effort to streamline the best attributes that a good regulator brings to the market. This means that good PBR emulates good regulation and it should encompass good aspects of good regulation. It does mean that major changes in LDC performance should trigger the requirement for an off-ramp whereby the "performance" of the regulated entity can be examined by a Board panel. Off ramp triggers should be carefully designed with the primary and ongoing focus on value to customers. Value to customers is not simply measured in prices. The question of which customers may be exposed (put at risk) by a PBR regime must carefully balance the interests of all customers. Having said this, all of the considerations have to happen in the context of a level playing field.

If the Board provides direction on policy, with a level playing field it cannot pick and choose when to apply it.

### **Scope of 3rd Generation Incentive Regulation**

ECMI agrees with the comments included in the Board's email and web posting of Sept 11, 2007 with respect to the interrelationship between three initiatives currently being undertaken by the Board.

Although the development of 3<sup>rd</sup> generation incentive regulation, a comparison of distributor costs and a review of service quality regulation initiatives are important, their integration with each other and other items identified in this section are essential.

The three items identified in the Board's email and web posting of Sept 11, 2007 are incomplete. A PBR regime should consider the impact of all material changes in the marketplace. In addition to establishing appropriate comparators and cohorts integrating service quality indices and C&DM implications, such items as rate design, smart metering, wage and capital cost inflation with an appropriate X-factor appropriately applied, distributed generation and other items which have a material impact on the market place should be considered when establishing drivers which might derail a PBR regime. These triggers if not adequately addressed will create a need for off ramps during the PBR regime.

Separation of a PBR regime into component boxes implies an independence in the components which does not exist. The interdependence of LDC costs is not dissimilar from the interdependence of a robust PBR regime. It is crucial that not only Board members but also Board Staff at the working level have the whole picture if a useful PBR regime is the desired outcome.

### **Service Quality Indicators (SQIs)**

The proposed Service Quality Indicators do not include loss of supply. The loss of supply is generally beyond the control of the LDC. While loss of supply is generally beyond the direct control of the embedded delivery point if the cause of the outage is a protection scheme outage caused by an electrical fault existing beyond the delivery point, then the "loss of supply" (breaker trips) is not a loss of supply caused by the delivery entity and the embedded entity should not report the outage as a loss of supply. This is true because the electrical fault causing the outage is on the embedded entity's system.

Comments on SQI in the Comparison of Distributors' Costs September 2007 workshop included the observation that phone response and achieving appointments had been excluded because all the LDCs perform well under these SQIs. Implicit behind this comment is that either these measures were unimportant or the OEB is only interested in utilising SQI's which punish distributors. While the comparison of distributors' costs may not require the inclusion of these items for the identification of cohorts, they should be considered as important items in a PBR regime or dropped from the SQI list.

The SQI list of measured items should probably be expanded to include such items as Estimated Unsupplied Energy (EUE). EUE may indirectly help the Board in evaluating CDM initiatives as EUE in some regulatory regimes is converted into dollar value to customers using the cost of unsupplied energy to customers.

## **Comparison of Distributor Costs**

On page 6, the scoping paper recognises that there are differences amongst electricity distributors. Variation in distributor size is one of these differences. If the Board chooses to consider comments of others on the scale (size) factors which might influence 3rd Generation Incentive Regulation, then in the interests of equity the Board must allow all parties the opportunity to comment.

### **1. Consideration of Capital**

The PEG report (Benchmarking The Costs Of Ontario Power Distributors”, by the Pacific Economics Group) fails to consider the capital employed to serve the customers. The cost of capital is an important part of the costs attributable to customers through the Ontario Energy Board regulatory practices. The age of the plant can provide a reasonable explanation for increased or reduced operation and maintenance costs (O&M costs). It can further explain higher administration costs if the LDC has higher levels of internal staff to scrutinise supervise, manage etc. Similarly, older plant can require greater administrative effort and associated costs if the LDC contracts out for maintaining and/or operation of the older distribution facilities.

A distribution system employing loop design or network like design techniques can result in a more capital intensive system. Such a system, if it were independent of density, could well produce a significantly higher level of reliability than a radial system. This higher level of reliability may be of material value to customers and worthy of higher rate levels as a result of both capital employed and O&M costs associated with that capital. In addition, a loop design system may result in lower levels of outage and lower O&M costs because of the ability to sectionalise and isolate the faulted section so that repairs can be performed on an unenergized section of the system. The value to customers is not recognised in the PEG report. The cost of this value to customers may result in a requirement for an LDC to retain higher levels of standby resources to deal with outage situations. Similarly a 24/7 operations and control centre may result in higher OM&A costs but permit reduced response and outage times.

When one is considering value to customers, the tax rate faced by the LDC should be considered. A small LDC with a relatively low net income will have approximately ½ the taxes of a large LDC. This recognised tax difference is reflected in the rates approved by the OEB and charged by the LDC. This can result in a material difference in the rates payable by the customers. Failure to consider this customer benefit may reduce the value to customers which might be derived from the PEG report.

### **2 Density**

The OEB should recognise that age of assets and customer density may well be the most appropriate considerations for defining a cohort.

Failure to adequately consider customer density as a prime factor. It is apparent that some of the fallout for some of the LDCs than in the establishment of the peer groups customer density per km of line failed to have sufficient weighting to recognise how fundamental a cost driver for OM& A for Ontario distributors. From the wording in Appendix B, density was secondary consideration, if at all.

If density is enough reason to exclude HONI and enough reason to establish Great Lakes Power as a separate cohort, then clearly it is essential that density dominate the establishment of cohorts and that a simple or complex or other type of “scanning” is hardly sufficient consideration when establishing a key measuring stick for LDCs. Measuring sticks, regardless of the best intent often turn into punishing canes in an inappropriate classroom.

### **3. Underground**

Similarly, the extent and particularly the age of underground facilities may likewise be next on the list for considerations in defining cohorts. Older underground facilities have a higher incidence of failure which results in higher maintenance costs than would be for an equivalent capacity overhead system repair. Underground in the Ontario market is most prevalent in assets constructed after 1970. Even in Ontario, underground installed prior to the mid 1950’s has a much higher failure rate than new underground installations. With the introduction of aluminum underground, cross linked polyethylene cables which were initially used for primary underground installations developed early unanticipated failures due to the nature of the insulating material and the method of installation. More recent underground installations may benefit from technological/material changes and improvements in installation techniques. Regardless, it is apparent that the degree of underground exclusive of age considerations is insufficient to be a prime driver in cohort determination. Lack of knowledge about the history in the Ontario system can readily punish an LDC for situations beyond any reasonable level of its control. Failure to fully recognise these underpinning fundamental cost drivers may make this study unhelpful if one is hoping to use the proposed cohorts as a significant consideration in establishing either allowed OM & A in the rates or in some way establish the rates or allowed return for any LDC.

### **4. Volumes**

The following comments demonstrate the high level of risk in utilising average delivery cost per customer or some similar metric in estimating or otherwise determining possible value to customers or establishing peer groups.

While the report purports to consider delivery volumes, large deliveries to individual customers near transformer stations may produce high deliveries with very low O&M costs and likewise very low capital costs. Failure to consider load distribution and utilise only numbers like average customer density can readily lead to erroneous conclusions about the costs incurred by an individual LDC. Similarly, an LDC may have one delivery point which supplies an apartment building which may have 500 or 600 individually metered LDC customers. This latter situation will produce apparently higher density while an individual industrial customer using the same amount of energy will produce a comparable lower density. The LDC’s delivery cost and external elements exposure (whether short term weather effects or long term ageing effects) can be identical for these 2 situations.

These comments underpin ECMI’s concerns regarding the use of scale related drivers. For ease of reference the quote establishing the apparent reliance on volume relating to number of customers is included from pages IV and V of the PEG report:

“All of the business condition variables in the models have statistically significant and sensibly signed parameter estimates. The explanatory power of the models is high. The results suggest that there are at least three scale-related drivers of distributor cost --- delivery volume, the number of customers served, and system extensiveness--- as well as miscellaneous other drivers that include undergrounding and forestation.”

Deliveries to Embedded LDCs would need to be included in the host distributor analysis in any energy delivery analysis. Also deliveries to other wholesale market participants should be included.

Volumes should also be considered on a delivered capacity perspective as delivered capacity is a significant cost driver for LDCs.

The initial flaw in the PEG report appears to be starting with a non transparent Board staff analysis and approach. Other flaws may stem from a lack of knowledge about Ontario distributors underpinning the assumption that there is sufficient homogeneity to make the sample size large enough for the analysis being performed. The analysis and underpinning assumptions missed too much and even with the adjustments proposed by PEG will not produce a robust regulatory tool nor should these results be utilised to fast track any LDC's regulatory submissions.

If benchmarking is to be considered as part of any future incentive based regulation program, the specific attributes underpinning the benchmarking process would have to be assessed for validity to produce any credible incentive regulation application. ECMI wishes to remind the Board that regulation is primarily for the protection of customers and if the failure to establish credible incentive regulation expectations based on value (not price) to customers will result in a flawed process with or without the use of any process including this flawed benchmarking study. In the end, if a system is degraded by an incentive based regulation plan, it will ultimately be the customers who pay for capital or OM&A costs associated with restoring the reliability of the LDC's system. This fact is demonstrated by the recent decision to allow Hydro One Networks to retain at least a share of earnings in excess of what would be allowed by the normal regulatory practices which underpinned the approval of the rates which produced excess earnings in the first place.

Once appropriate cohorts are established the base X-factor for the cohort should be common to all cohorts. A common reduction in X-factor should apply to the top quartile performing LDCs within the cohort. These new base X-factors should then be adjusted recognising capital.

The current application of the X - factor applies to each service revenue rate which establishes the total service revenue component of the LDC's revenue. This service revenue is virtually all of the LDC's revenue. The notion behind an X - factor is that that the X factor revenue reduction should be achievable within the areas over which the LDC has control of its costs. Costs which should be excluded include the rate base which changes only marginally over a long time period. Also excluded from items which LDCs have control over is depreciation. A reasonable expectation of a good X - factor is that the LDC should be able to continue to realise a “fair rate of return” if a reasonable cost reduction is achieved.

It is apparent that if an X - factor applies only to the Operation Maintenance and Administration (OM&A) costs that it captures costs which are at least to some extent within the control of the LDC. What that says is that if a uniform X-factor applying to all LDC's applies against an LDC with a relatively low OM&A, the revenue reduction required to achieve the X-factor would be smaller. A uniform X-factor should then produce a less onerous burden on LDCs with lower OM&A costs. However, a good PBR regime should reward LDCs with lower OM&A costs. One possible way of rewarding "high performance" LDCs is to apply a smaller X-factor to those LDCs. Before this could be applied, the total cost to customers would have to be considered. This total cost would have to include recognition of the net capital employed in serving the customers. If an LDC has an older system (reflected in lower net capital employed) it would be reasonable to expect the OM&A to be slightly higher. The comments in this paragraph are based on LDCs which are relatively comparable in terms of a cohort definition. What this says is that the previous comments could be applied within a cohort and still provide an equal treatment of equals (equitable regulation).

A PBR regime should only extend three years exclusive of shorter term events which trigger off ramps. In the absence of more robust information underpinning the definition of comparators and cohorts and cost drivers the 3 year limit should apply. If the Board establishes an imperfect PB regime of 3 years duration and it causes damage to a distributor, it is one thing. However, if that regime prevails for 7 years then it could affect the very viability of the LDC.

### **Conservation and Demand Management Programs (keeping the lights on)**

Conservation and Demand Management (CDM) programs can have significant implications for the design of 3rd Generation Incentive Regulation, insofar as a successful CDM program will influence an LDC's revenue stream.

Lost Revenue Adjustment Mechanism (LRAM) programs can also have significant implications for the design of 3rd Generation Incentive Regulation. LRAMs are a patch to an LDC's revenue stream resulting from a successful CDM program and, like successful CDM programs, will therefore change an LDC's revenue stream.

### **Distributed Generation**

The adequate accommodation and integration of distributed generation in any current PBR regime is an important part of keeping the lights on.

### **Gas industry and electricity rate design**

The metering and the delivery conditions associated with the gas industry should not be used as a prime driver in electricity rate design. The information needs and costs in the electricity industry are materially different from the gas industry in terms of metering, energy storage and system utilisation.